

CLAIM AMENDMENTS

1. (Currently Amended) A method for taxonomic identification of a biological analyte comprising:

(a) exposing the solution containing the analyte to a non-antibody ligand specific for the analyte of interest that has been conjugated to a ~~marker~~, marker, wherein the ligand is chosen from the group comprised of:

1. a heme compound;
2. a siderophore;
3. a polysaccharide;
4. a peptide specific for an outer membrane protein; and
5. a peptide specific for a conjugated lipid;

(b) separating the bound analyte from the excess marker-conjugated ~~ligands~~, ligands, wherein the bound analyte is separated from the solution with a ligand tethered to a substrate and wherein the tether is photostable and the length of the tether is around forty Å for capture of microorganisms.

(c) interrogation of the analyte for ligand binding via detection of the conjugated marker.

2. (Original) The method of claim 1, wherein the biological analyte is selected from the group comprised of:

- (a) bacteria;
- (b) viruses;
- (c) proteinaceous toxin;
- (d) rickettsiae;

- (e) protozoa;
 - (f) fungi; and
 - (g) cytosolic protein.
3. (Currently amended) The method of claim 1, wherein the separation of the bound analyte from the excess conjugated ligand is accomplished via ~~chromatography.~~
chromatographic separation using a substrate incorporating tethered ligands.
4. (Withdrawn) The method of claim 1, wherein the ligand is conjugated to a magnetic particle and the separation of the bound analyte from the non-binding components of the analyte solution is accomplished by magnetic separation with the ligand being tethered to the magnetic ~~particle by at around forty Å for capture of microorganisms.~~ particle.
5. (Withdrawn) The method of claim 1, wherein the ligand is a heme compound.
6. (Withdrawn) The method of claim 1, wherein the ligand is a siderophore.
7. (Withdrawn) The method of claim 1, wherein the ligand is a polysaccharide.
8. (Original) The method of claim 1, wherein the ligand is a peptide specific for an outer membrane protein.
9. (Withdrawn) The method of claim 1, wherein the ligand is a peptide specific for a conjugated lipid.
10. (Original) The method of claim 1, wherein the marker is fluorescent and the detection is via fluorescence.
11. (Original) The method of claim 1, wherein the marker is luminescent and the detection is via luminescence.
12. (Original) The method of claim 1, wherein the marker is radioactive and the detection is via radioactivity.

13. (Original) The method of claim 1, wherein the marker is phosphorescent and the detection is via phosphorescence.